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ABSTRACT

By the time today's eighth graders reach age 28-29, approximately 66% will have had some kind of postsecondary education or training. There has been a dramatic upward shift in the education and skill requirements for all occupations. Access to higher education has become the threshold for career success. Elite managerial and professional jobs, which are the highest-paid jobs, go primarily to people with bachelor's degrees. The good jobs held by crafts workers, technicians, clerical workers, and others go mainly to people with some college but no degree. The less-skilled, lowest-paid jobs go to less-educated workers, many of whom are in transition to more skilled jobs or are combining work and schooling. Although average earnings for women are still lower than average earnings for men, the correlation between education and earnings has increased dramatically for both genders in the past 2 decades. The jobs that employ the most skilled workers are growing the fastest. The most skilled students are more likely to attain higher levels of education. A strong high school curriculum lowers the hurdles to college graduation at every socioeconomic status, especially for minorities. Social capital factors, such as parental expectations, also play a strong role in educational attainment. (Contains 37 figures.) (MN)





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Help Wanted...College Required



2001 Business-Education Partnerships Conference, Chicago, Illinois January 8-9, 2001

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Anthony P. Carnevale

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By the Time Eighth Graders Reach Age 28-29, About 66% Will Have Had Some Kind of Post-High-School Education or Training

Of the 800,000 children that

did not graduate in 1992, about 400,000 subsequently

completed high school by

returning or GED

certification.

Out of 3.1 million eighth graders in 1988... 2.3 million (74%) graduated from high school in 1992. At graduation, only 1.5 million (66% of those who graduated) aspired to a bachelor's degree... 1.3 million high school graduates (56%) had the minimum academic preparation needed to enroll in college,,, 'n÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ň÷ 1.2 million (52%) took the SAT and/or ACT,,, ...and 1.1 million (47%) applied to a four-year institution. 'n÷r÷r÷r÷r÷r÷r÷r÷r÷r By 1994, only 0.9 million (40%) had enrolled in a four-year institution... ***************** ...And about 0.8 million (35%) had enrolled in a less-than-four-year institution. **^** By 2002, when they are age 28-29, about 1.2 million (39% of eighth-graders) will have completed some post-high-school education or training but not a B.A.... ...about 0.7 million (24% of eighth-graders) will have completed a B.A.... ************** ...and about 0.1 million (3% of eighth-graders) will have completed an advanced degree. ŤŤ

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: Adapted from National Center for Education Statistics, Confronting the Odds (1997), Table 6 and National Center for Education Statistics, Educational Attainment of 1980 High School Sophomores By 1992 (1995), Table 2.4.A.



Education, Occupations, and Careers

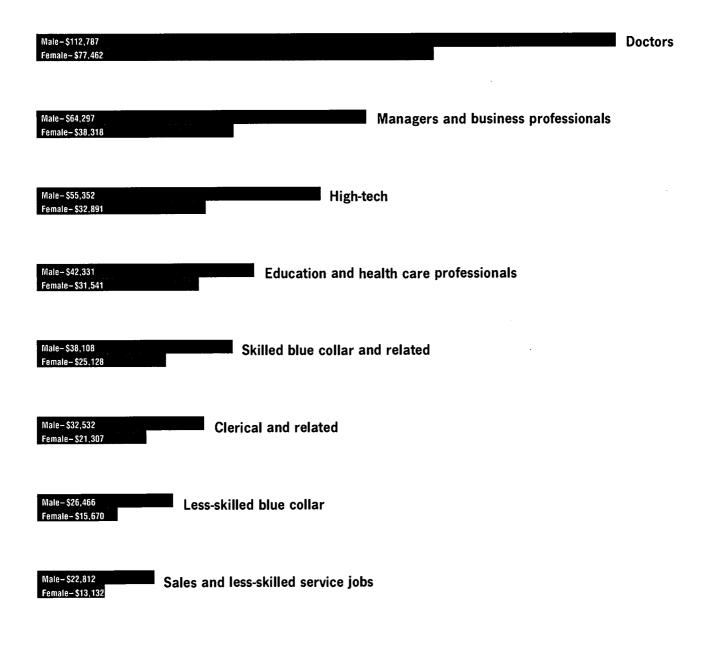
- There has been a dramatic upward shift in the education and skill requirements for all occupations.
- Access to higher education has become the threshold for career success.

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The Occupational and Earnings Hierarchy

Average earnings of prime-age workers in 1998



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of Current Population Survey (March 1999).

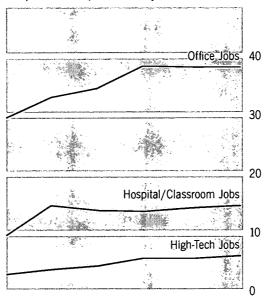




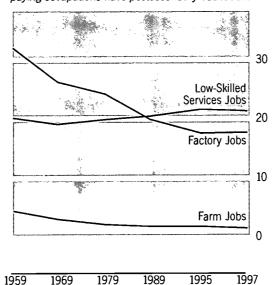
Education and Occupation, 1959–1997

Percentage of total employment

More than two-thirds of workers in growing, good-paying occupations have postsecondary education:



Only one-third of workers in these declining or lowpaying occupations have postsecondary education:



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of 1960 Census and Current Population Survey (March 1970–March 1998).





Most Jobs Now Require

Educational Attainment Beyond High School

Percentage of prime-age workers in each educational category

In 1973	
32% of a	II workers had not completed high school
	■ 40% had finished high school and stopped there
12% had some college but no degree	
and 16% had a bachelor's or adv	anced degree
By contrast, in 1998	
10% of all workers had not completed hig	h school
33% had	finished high school and stopped there
18% had some college	
9% had an associate's degree	
and 30% hs	ad a hachelor's or advanced degree

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of Current Population Survey (March 1994 & 1999).



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Among Jobs at the Top of the Earnings Hierarchy, Educational Requirements Have Increased Dramatically

Percentage of prime-age workers in each educational category

Among managers and business professionals, the percentage of workers with only a high school diploma fell to close to 50% while the percentage of those with some college or a college degree rose substantially. In 1973
9% of all workers had not completed high school
33% had finished high school and stopped there
21% had some college but no degree
and 38% had a bachelor's or advanced degree
In 1998
■ 2% of all workers had not completed high school
18% had finished high school and stopped there
19% had some college
8% had an associate's degree
and 52% had a bachelor's or advanced degree
High-tech workers followed a similar pattern. In 1973
7% of all workers had not completed high school
31% had finished high school and stopped there
21% had some college but no degree
and 42% had a bachelor's or advanced degree
In 1998
■ 1% of all workers had not completed high school
14% had finished high school and stopped there
19% had some college
15% had an associate's degree
and 52% had a bachelor's or advanced degree
Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public





Leadership: ETS analysis of Current Population Survey (March 1994 & 1999).

Education and Health Care Professions Have Always Had High Educational Requirements

Percentage of prime-age workers in each educational category

in 1973	
4% of all workers had not completed high school 14% had finished high school and stopped there 13% had some college but no degree	and 70% had a bachelor's or advanced degree
In 1998	•
 1% of all workers had not completed high school 6% had finished high school and stopped there 7% had some college 11% had an associate's degree 	
	and 77% had a bachelor's or advanced degree

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of Current Population Survey (March 1994 & 1999).





High School Dropouts Are Being Shut Out of Skilled Labor, Clerical Work, and Related Professions

Percentage of prime-age workers in each educational category

In 1973	
	36% of all workers had not completed high school
	46% had finished high school and stopped there
	■ 12% had some college but no degree
and	% had a bachelor's or advanced degree
In 1998	
	11% of all workers had not completed high school
	41% had finished high school and stopped there
	22% had some college
	0% had an associate's degree
	and 16% had a bachelor's or advanced degree
The same th	and 16% had a bachelor's or advanced degree In happened among clerical and related professions. In 1973 14% of all workers had not completed high school 62% had finished high school and stopped there
The same th	and 16% had a bachelor's or advanced degree In happened among clerical and related professions. In 1973 14% of all workers had not completed high school 62% had finished high school and stopped there 18% had some college but no degree
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The same the and	and 16% had a bachelor's or advanced degree In page 14% of all workers had not completed high school 18% had some college but no degree 7% had a bachelor's or advanced degree 18 workers had not completed high school
The same the and and In 1998	and 16% had a bachelor's or advanced degree In happened among clerical and related professions. In 1973 14% of all workers had not completed high school 62% had finished high school and stopped there 18% had some college but no degree 7% had a bachelor's or advanced degree workers had not completed high school 42% had finished high school and stopped there



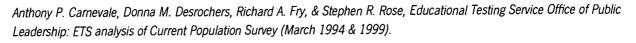


Leadership: ETS analysis of Current Population Survey (March 1994 & 1999).

Even Among the Less-Skilled Professions, Educational Attainment Is Becoming More Important

Percentage of prime-age workers in each educational category

	rkers with some college or a college degree tripled. In 1973 60% of all workers had not completed high school
	ad finished high school and stopped there
■ 5% had some college but no degree ■ and 2% had a bachelor's or advanced degr	ee
In 1998	
27% of all works	· -
	50% had finished high school and stopped there
14% had some college	
5% had an associate's degree	
1 AOV I - II - beat also to a construction of all	
and 4% had a bachelor's or advanced d	egree
The same was true among sales and less-sk	
The same was true among sales and less-sk	47% of all workers had not completed high school 43% had finished high school and stopped there
The same was true among sales and less-sk 7% had some college but no degree	47% of all workers had not completed high school 43% had finished high school and stopped there
The same was true among sales and less-ske 7% had some college but no degree and 3% had a bachelor's or advanced de	47% of all workers had not completed high school 43% had finished high school and stopped there
The same was true among sales and less-sk 7% had some college but no degree and 3% had a bachelor's or advanced de In 1998 22% of all workers had	47% of all workers had not completed high school 43% had finished high school and stopped there gree
The same was true among sales and less-sk 7% had some college but no degree and 3% had a bachelor's or advanced de In 1998 22% of all workers had	illed service professions. In 1973 47% of all workers had not completed high school 43% had finished high school and stopped there gree d not completed high school
The same was true among sales and less-ske 7% had some college but no degree and 3% had a bachelor's or advanced de In 1998 22% of all workers had	illed service professions. In 1973 47% of all workers had not completed high school 43% had finished high school and stopped there gree d not completed high school







Earnings in Elite, Good, and Less-Skilled Jobs

- Elite managerial and professional jobs are the highest-paid jobs and they go primarily to people with bachelor's degrees. Thirty million of all prime-age workers are in these jobs. Average earnings are \$59,000 for men and \$34,000 for women.
- Good jobs held by crafts workers, technicians, clericals, and others are well-paid jobs, paying an average of \$37,000 for men and \$22,000 for women. They go mainly to people who have some college but no degree.
- Less-skilled jobs in retail, personal services, and other minimally skilled occupations are the low-wage jobs, paying an average of \$25,000 for men and \$13,000 for women. The category includes machine operators, salesclerks, janitors, and hotel workers. Few of these workers have college degrees; most are in transition to more skilled jobs or are combining work and schooling.



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The Vast Majority of Elite and Good Jobs Are Now Held by People with at Least Some College

Percentage of prime-age workers in 1998

Of those workers in elite jobs	
26% have graduate deg	rees
379	% have bachelor's degrees
9% had an associate's degree	
14% have some college	
12% have completed high school only	
■ 1% are high school dropouts	
While among workers in good jobs	
3% have graduate degrees	
14% have bachelor's degrees	
11% had an associate's degree	
25% have some college	
	■ 40% have completed high school only
7% are high school dropouts	- 40% have completed high concer only
And among workers in less-skilled jobs	
■ 1% have graduate degrees	
6% have bachelor's degrees	
6% had an associate's degree	
16% have some college	
	18% have completed high school only
24% are high school dropouts	
•	
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And among workers in less-skilled jobs 1% have graduate degrees 6% have bachelor's degrees 6% had an associate's degree 16% have some college	





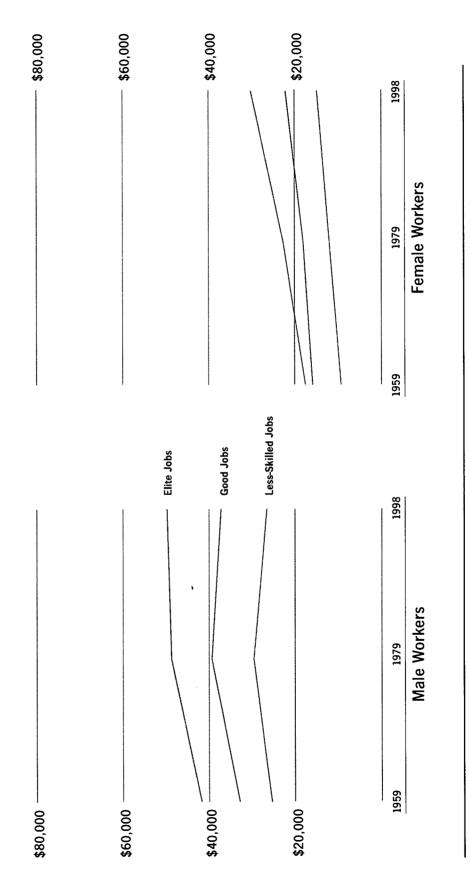
Public Leadership: ETS analysis of Current Population Survey (March 1999).

As Educational Requirements Increase, the Earnings Difference between Elite, Good and Less-Skilled Jobs Is Growing, Especially for Men

FIGURE 10

ERIC Full feet Provided by ERIC

Earnings of prime-age workers (30-59 years old) in 1996 dollars



Anthony P. Camevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.

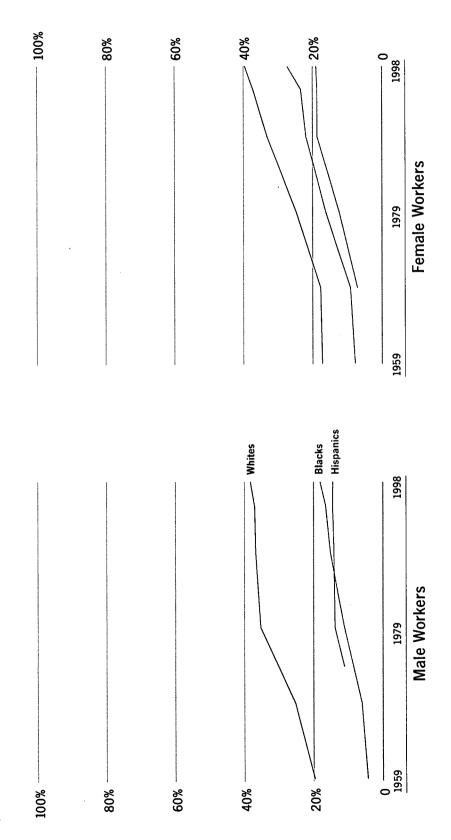




FIGURE 11

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Although Minorities and Women Have Made Gains in Their Shares of Elite Managerial and Professional Jobs, Non-Hispanic Whites Still Hold the Largest Share

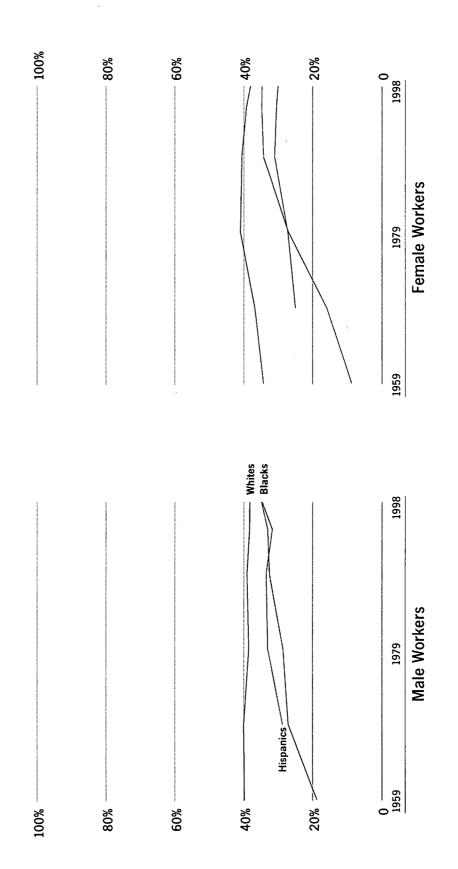


Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1974, 1980 & 1999) and Public Use Microdata Sample, 1960 Census.



ERIC Full feat Provided by ERIC

There Is Greater Equality between Majority and Minority Populations in the Share of Good Jobs



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1974, 1980 & 1999) and Public Use Microdata Sample, 1960 Census.

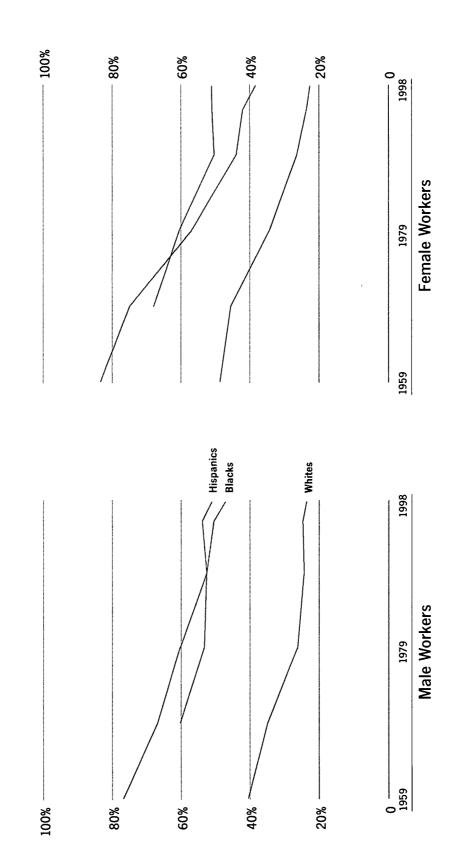


FIGURE 13

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Minorities—Especially Black Women—Have Reduced Their Share in the Least Skilled and Lowest Paid Jobs, But Nearly Half Remain in This Category



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1974, 1980 & 1999) and Public Use Microdata Sample, 1960 Census.





Earnings and Educational Attainment

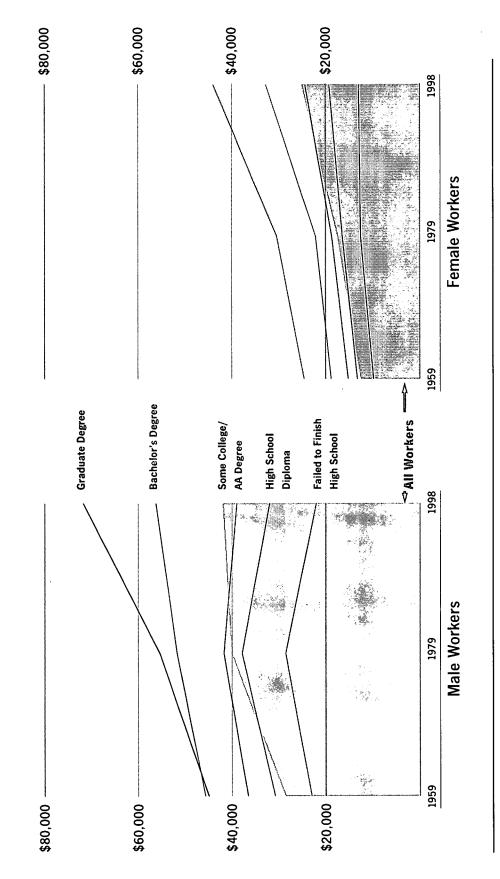
- For both men and women, the degree to which earnings vary with education has increased dramatically in the last two decades.
- Earnings for men who do not have at least a bachelor's degree are lower now than they were in 1979.
- Earnings for women have increased across the board, but remain lower than those for men.





Earnings Depend Increasingly on Educational Attainment

Earnings of prime-age workers (30-59 years old) in 1996 dollars



Anthony P. Camevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.



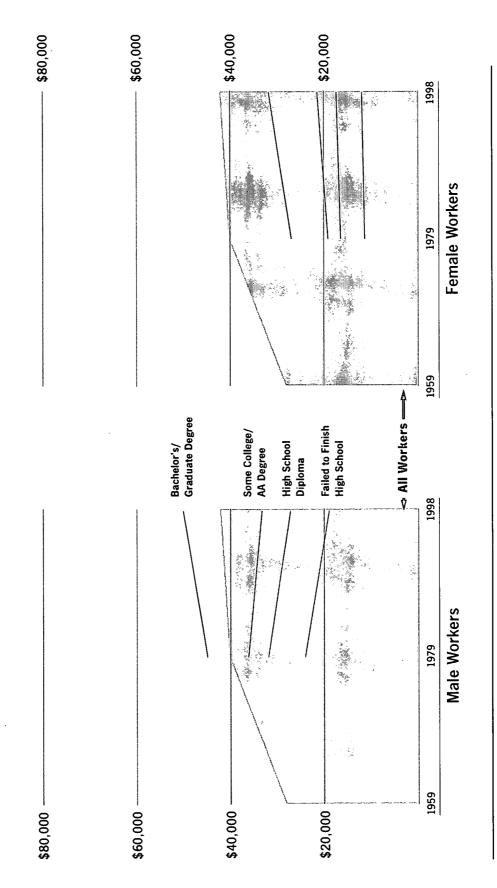


FIGURE 14

FIGURE 15

Among Hispanic Men, Earnings Have Dropped for Those Without College Degrees

Earnings of prime-age workers (30-59 years old) in 1996 dollars



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sarnple, 1960 Census.



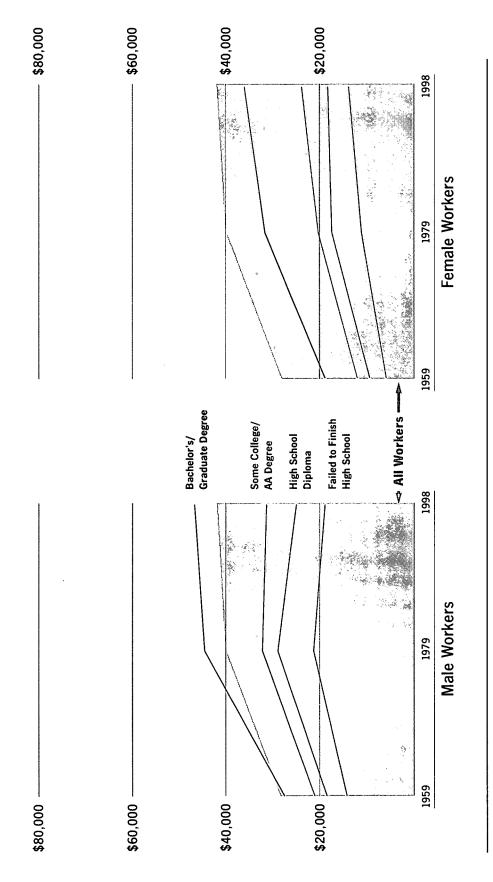


FIGURE 16

ERIC Full Text Provided by ERIC

But Have Nearly Doubled for Those with Bachelor's or Advanced Degrees Earnings for African Americans Have Increased Across the Board,

Earnings of prime-age workers (30-59 years old) in 1996 dollars



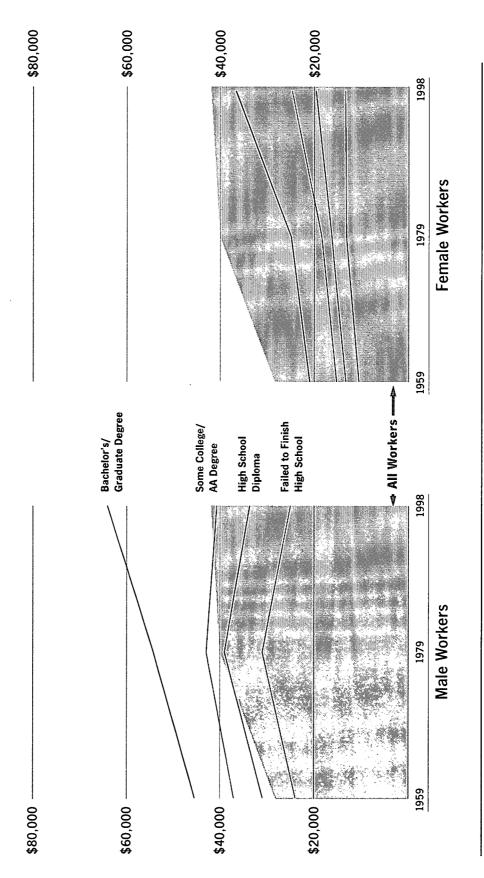
Anthony P. Camevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.



FIGURE 17

Among White Men, Only Those with Bachelor's or Advanced Degrees Have Significantly Increased Their Earnings

Earnings of prime-age workers (30-59 years old) in 1996 dollars



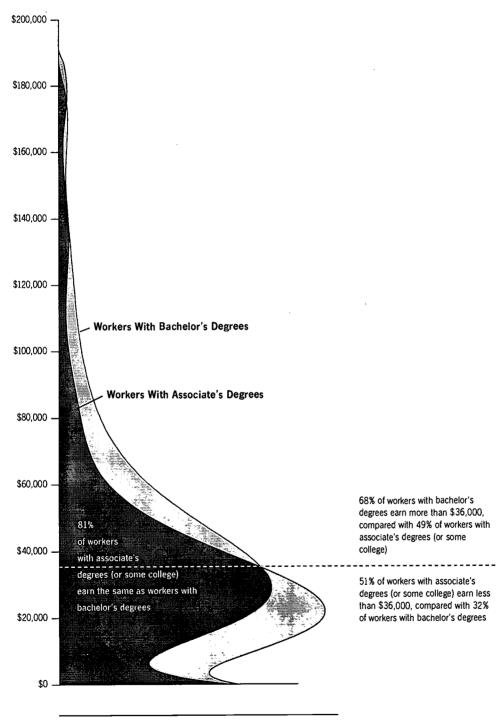
Anthony P. Camevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.

30



81% of Workers With Associate's Degrees (or Some College)
Earn the Same as Workers With Bachelor's Degrees

Share of workers, by education and 1997 earnings



ETS analysis of Current Population Survey (March 1998).

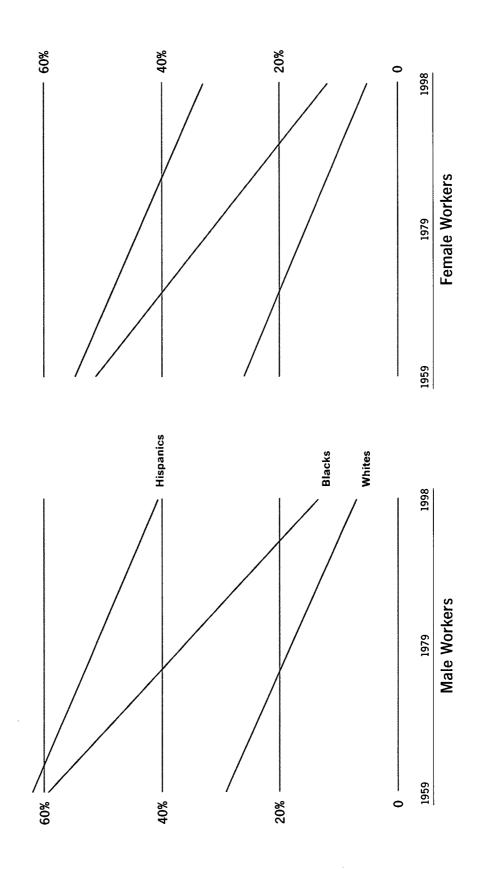


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FIGURE 19

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Among All Groups—And Most Notably Among African Americans— The High School Dropout Rate Has Dropped Dramatically



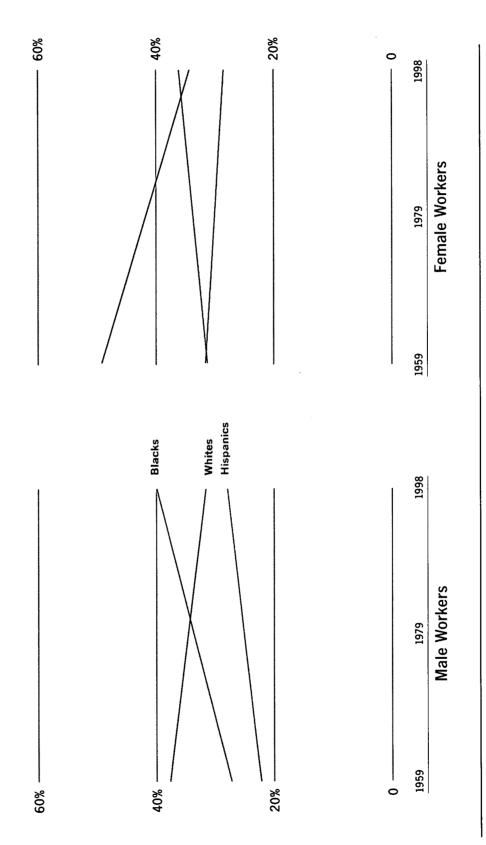
Anthony P. Camevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.



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Who End Their Schooling with a High School Diploma Has Dropped As Well For Whites and for Hispanic Women, The Percentages of Workers



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.

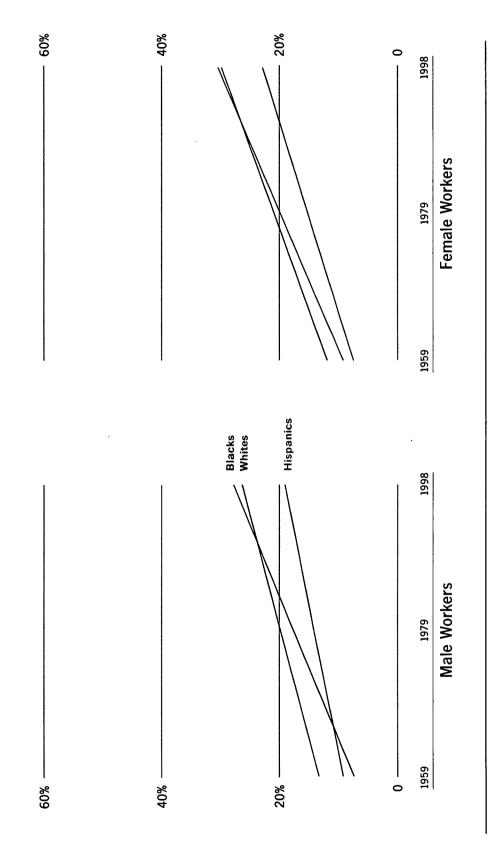


FIGURE 21

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Shares of Workers Who Have at Least Some College... For All Groups, The Most Dramatic Gains Are in the



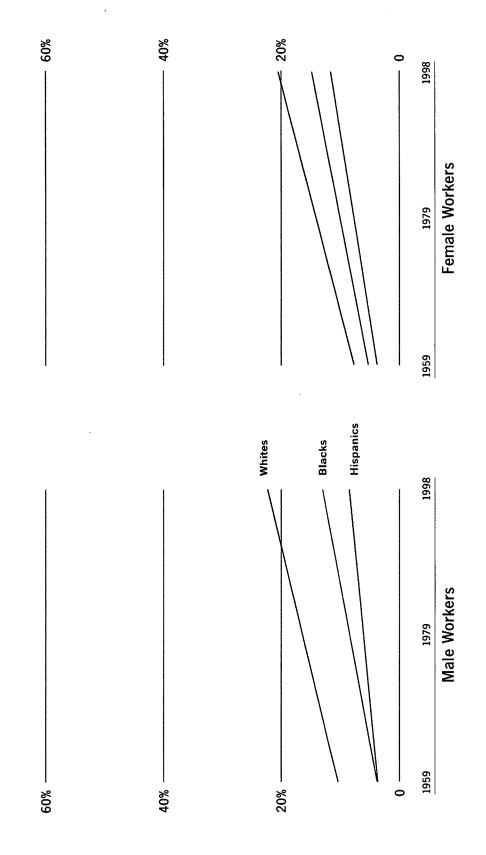
Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.



FIGURE 22

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... Followed Closely by the Shares of Workers Who Complete a College Degree



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.



FIGURE 23

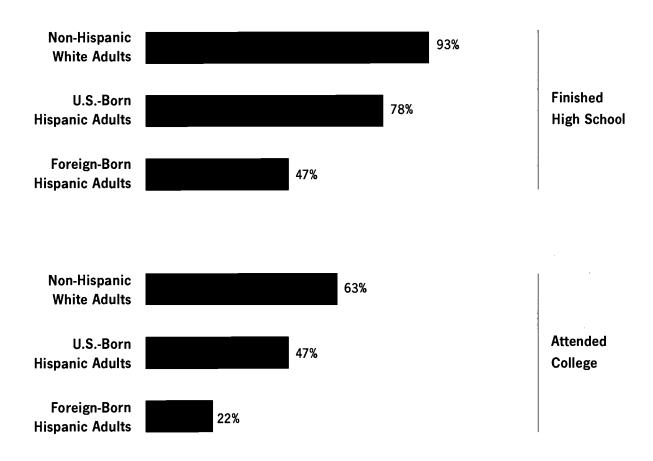
All Groups Have Also Increased Their Rate of Attaining Advanced Degrees, But the Percentage of Workers Who Do So Is Still Low

Percentage of prime-age workers (30-59 years old)

%09 -	- 40%	- 20%	0	86
				1979 1998 Female Workers
				1959
			Whites Blacks Hispanics	m t
				1998
				Male Workers
	40%	50%		1959

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of Current Population Survey (March 1980 & 1999) and Public Use Microdata Sample, 1960 Census.

Among Hispanic Adults, U.S.-Born Tend to be Better Educated than Foreign-Born



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of Current Population Survey (April 1998).

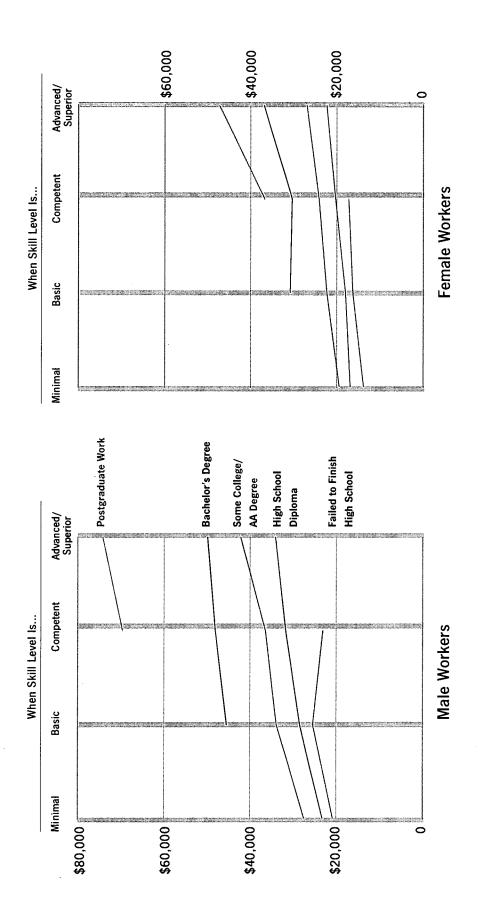


ETS)

Both Educational Credentials and Skill Levels Affect Earnings FIGURE 25

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Average annual earnings of year-round workers age 16-64 in 1998 dollars



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of National Adult Literacy Survey (1992). Data converted to 1998 dollars using CPI-U. Missing graph segments are ones in which sample size is too small to provide a reliable estimate.





The Growing Demand for College-Level Skills Through 2008

- The jobs that employ the most skilled workers are growing the fastest.
- These jobs are also the ones that pay the most.

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The Jobs That Employ the Most Skilled Workers Are Growing the Fastest... **FIGURE 26**

Skill Level	Millions of Jobs 1998->2008	New Jobs 1998-2008	Fastest Growing Occupations
Level 1: Minimal Skills (Dropout)	17.1→19.0	1.9 million	Janitors, cleaners, maids, and building service workers Groundskeepers, gardeners, nursery workers Hand packers and packagers Vehicle washers and equipment cleaners
Level 2: Basic Skills (Below-average high school graduate)	34.7→38.9	4.3 million	Cashiers Truck drivers Nursing aides, orderlies, attendants Cooks Health aides, except nursing
Level 3: Competent Skills (Some postsecondary)	52.6→60.0	7.3 million	Sales workers General office clerks Registered nurses Personal care and home health aides Correctional institution officers
Level 4/5: Advanced/ Superior Skills (Bachelor's degree or more)	36.2→43.0	6.8 million	Computer system analysts and scientists General managers, top executives, and other managers Social and recreation workers Teachers, secondary school Computer programmers

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of National Adult Literacy Survey (1992); Bureau of Labor Statistics Occupational Projections (1998-2008).



...And Paying the Most

Annual earnings of year-round workers in 1998

	1998 Annu	1998 Annual Earnings
Skill Level	Men	Women
Level 1: Minimal Skills (Dropout)	\$22,800	\$15,800
Level 2: Basic Skills (Below-average high school graduate)	\$30,600	\$19,500
Level 3: Competent Skills (Some postsecondary)	\$38,200	\$23,700
Level 4/5: Advanced/ Superior Skills (Bachelor's degree or more)	\$53,100	\$33,100

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS Analysis of National Adult Literacy Survey (1992). Data converted to 1998 dollars using CPI-U.



FIGURE 28 Moving Up the Ladder

The notion that the U.S. economy is producing too many low-wage service jobs is often overstated. Low-skilled, low-earnings occupations employ large proportions of young workers who eventually complete their education and move into higher-skilled, higher-paying jobs.

Typical Skill Level	Occupation	Less than Age 25	Age 25 or Greater	Median Annual Earnings*
Basic	Handlers, equipment cleaners, helpers, and laborers	34.5%	65.5%	\$20,000
Basic	Services, except protective and household	31.6%	68.4%	\$16,000
Competent	Sales ·	25.4%	74.6%	\$30,000
Basic	Private households	23.6%	76.4%	\$12,000
Basic	Farming, forestry, and fishing	. 22.9%	77.1%	\$20,000
Competent	Administrative support, including clerical	18.0%	82.0%	\$24,000
Basic	Machine operators, assemblers, and inspectors	15.1%	84.9%	\$24,000
Competent	Protective support	15.1%	84.9%	\$35,000
Competent	Technicians and related support	11.9%	88.1%	\$34,325
Basic/Competent	Precision production, craft, and repair	10.8%	89.2%	\$30,000
Basic	Transportation and material moving	10.7%	89.3%	\$29,000
Advanced	Professional specialty	7.0%	93.0%	\$42,000
Competent	Executive, administrative, and managers	4.7%	95.3%	\$42,000

^{*} Includes only full-time, year-round workers.

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of National Adult Literacy Survey (1992); Current Population Survey (March 1999).





Skills and Educational Attainment

The most skilled students are more likely to attain higher levels of education.

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The Most Skilled Students Are More Likely to Attain Higher Levels of Education...

Educational attainment by 1992 (age 27-28)

Among students whose test scores were in the top of Less than 1% dropped out of high school	quartile of their high school senior class:
27% earned only a high sch	ool diploma
5% earned a vocational certificate	
8% earned an associate's degree	
4	9% earned a bachelor's degree
12% earned an advanced degree	
Among students whose test scores were in the third 3% dropped out of high school	quartile of their high school senior class:
	51% earned only a high school diploma
11% earned a vocational certificate	
11% earned an associate's degree	
22% earned a bachelor's degree	
■ 3% earned an advanced degree	
Among students whose test scores were in the seco 6% dropped out of high school	nd quartile of their high school senior class: 61% earned only a high school diploma
15% earned a vocational certificate	- 01% carried only a riigh school diploma
9% earned an associate's degree	
9% earned a bachelor's degree	
■ 1% earned an advanced degree	
■ 1% earned an advanced degree	
Among students whose test scores were in the bottom 20% dropped out of high school	-
	61% earned only a high school diploma
12% earned a vocational certificate	
4% earned an associate's degree	
3% earned a bachelor's degree	
Less than 1% earned an advanced degree	

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of High School and Beyond 1980 Sophomore Cohort, 1980–1992.





... And This is True for Hispanic Students...

Educational attainment by 1992 (age 27-28)

high school senior class:	were in the top quartile of their
Less than 1% dropped out of high school	
	36% earned only a high school diploma
10% earned a vocational certificate	
7% earned an associate's degree	
	36% earned a bachelor's degree
10% earned an advanced degree	
Among Hispanic students whose test scores	were in the third quartile of their
high school senior class:	
4% dropped out of high school	EOW soward only a high school diploma
9% earned a vocational certificate	52% earned only a high school diploma
10% earned an associate's degree	
24% earned a bachelor's de	aron
■ 1% earned an advanced degree	Rice
• 1% earned an advanced degree	
Among Hispanic students whose test scores high school senior class:	were in the second quartile of their
8% dropped out of high school	
8% dropped out of high school	60% earned only a high school diploma
	60% earned only a high school diploma
11% earned a vocational certificate	60% earned only a high school diploma
11% earned a vocational certificate 13% earned an associate's degree	60% earned only a high school diploma
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree	60% earned only a high school diploma
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree	
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores	
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores high school senior class:	were in the bottom quartile of their
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores	were in the bottom quartile of their school
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores high school senior class:	were in the bottom quartile of their
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores high school senior class: 27% dropped out of high	were in the bottom quartile of their school
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores high school senior class: 27% dropped out of high	were in the bottom quartile of their school
11% earned a vocational certificate 13% earned an associate's degree 7% earned a bachelor's degree Less than 1% earned an advanced degree Among Hispanic students whose test scores high school senior class: 27% dropped out of high 11% earned a vocational certificate 3% earned an associate's degree	were in the bottom quartile of their school





Leadership: ETS analysis of High School and Beyond 1980 Sophomore Cohort, 1980-1992.

...And Black Students...

Educational attainment by 1992 (age 27-28)

Among Black students whose test scores were in the top quartile of their high school senior class:	
Less than 1% dropped out of high school	
33% earned only a high school diploma	
5% earned a vocational certificate	
6% earned an associate's degree	
42% earned a bachelor's degree	
13% earned an advanced degree	
Among Black students whose test scores were in the third quartile of their high school senior class:	
Less than 1% dropped out of high school	
50% earned only a high school diploma	
15% earned a vocational certificate	
7% earned an associate's degree	
25% earned a bachelor's degree	
3% earned an advanced degree	
Among Black students whose test scores were in the second quartile of their high school senior class:	
Less than 1% dropped out of high school	
58% earned only a high school diploma	
21% earned a vocational certificate	
8% earned an associate's degree	
11% earned a bachelor's degree	
■ 2% earned an advanced degree	
Among Black students whose test scores were in the bottom quartile of their high school senior class:	
16% dropped out of high school	
61% earned only a high school diploma	
14% earned a vocational certificate	
■■ 4% earned an associate's degree	
5% earned a bachelor's degree	
■ 1% earned an advanced degree	
- 270 ONITION MANAGEMENT MODION	

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: ETS analysis of High School and Beyond 1980 Sophomore Cohort, 1980–1992.





...And Asian and Other Students...

Educational attainment by 1992 (age 27-28)

Among Asian and other students whose high school senior class:	e test scores were in the top quartile of their
Less than 1% dropped out of high school	
19% earned only a high	zh school diploma
5% earned a vocational certificate	• • • • • • • • • • • • • • • • • • • •
8% earned an associate's degree	
	45% earned a bachelor's degree
21% earned an adva	_
Among Asian and other students whose high school senior class:	e test scores were in the third quartile of their
4% dropped out of high school	
	53% earned only a high school diploma
7% earned a vocational certificate	
5% earned an associate's degree	
22% earned a bachelor	r's degree
9% earned an advanced degree	•
high school senior class: 5% dropped out of high school	e test scores were in the second quartile of their 62% earned only a high school diploma
11% earned a vocational certificate	
7% earned an associate's degree	
13% earned a bachelor's degree	
■ 2% earned an advanced degree	
Among Asian and other students whose high school senior class:	e test scores were in the bottom quartile of their
15% dropped out of high school	
	■ 62% earned only a high school diploma
16% earned a vocational certification	ate
16% earned a vocational certification 4% earned an associate's degree	ate
	ate





Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public

...And White Students

Educational attainment by 1992 (age 27-28)

high school senior class:	
Less than 1% dropped out of high school	
26% earned only a high school diploma	
5% earned a vocational certificate	
8% earned an associate's degree	
49% earned a bachelor's degree	
11% earned an advanced degree	
Among White students whose test scores were in the third quartile of their	
high school senior class:	
3% dropped out of high school	
51% earned only a high school diploma	
11% earned a vocational certificate	
11% earned an associate's degree	
22% earned a bachelor's degree	
■ 2% earned an advanced degree	
Among White students whose test scores were in the second quartile of their high school senior class:	
7% dropped out of high school	
62% earned only a high school diploma	
14% earned a vocational certificate	
9% earned an associate's degree	
8% earned a bachelor's degree	
Less than 1% earned an advanced degree	
Among White students whose test scores were in the bottom quartile of their high school senior class:	
22% dropped out of high school	
61% earned only a high school diploma	
10% earned a vocational certificate	
■ 4% earned an associate's degree	
■ 2% earned a bachelor's degree	
Less than 1% earned an advanced degree	





Leadership: ETS analysis of High School and Beyond 1980 Sophomore Cohort, 1980-1992.

Other Influences on Educational Attainment

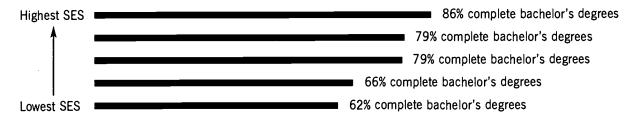
- A strong high school curriculum lowers the hurdles to college graduation for students at every socioeconomic status, especially minorities.
- Social capital factors—such as parental expectations—also play a strong role in educational attainment.

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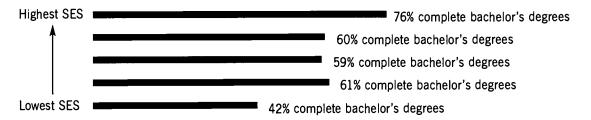
A Strong High School Curriculum Lowers the Hurdles to College Graduation for Students at Every Socioeconomic Status...

Percentage of students completing a bachelor's degree

With the "most rigorous" curriculum...



With a "challenging" curriculum...



With a "less demanding" curriculum...



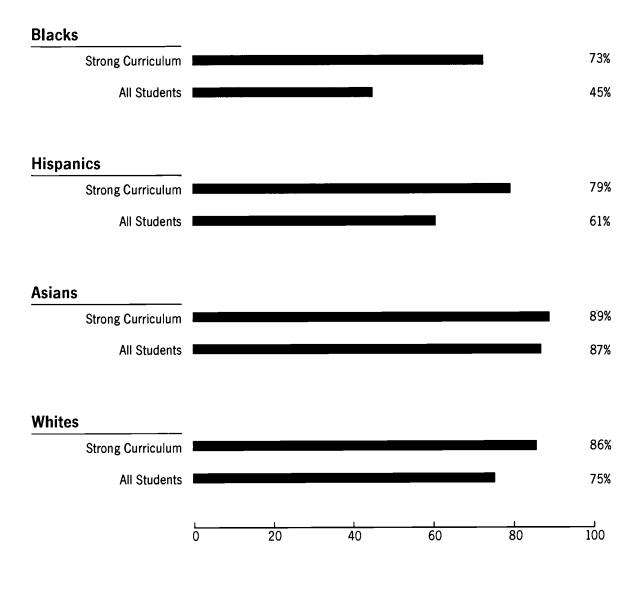
Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: Adapted from Adelman, Clifford, U.S. Dept. of Education (1999). Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment.





... Especially for Minorities

Percentage of students completing a bachelor's degree



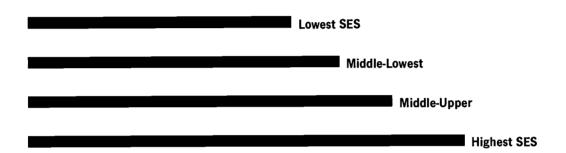
Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: Adapted from Adelman, Clifford, U.S. Dept. of Education (1999). Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment.





Parental Expectations Concerning Education Vary with Socioeconomic Status

Percentage of parents of 12th graders who expected at least a bachelor's degree



Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: Adapted from Cabrera & La Nasa Center for Study of Higher Education, Pennsylvania State University.





Parenting Factors that Affect College-Going of At-Risk Students

More at-risk students whose parents expected them to get a B.A. degree or nigher went to college
78%
than did those whose parents expected them to get some postsecondary education
56%
or those whose parents expected them to earn a high school diploma or less.
More at-risk students whose parents discussed school very frequently with them enrolled in college
than did those whose parents' school discussions with them were only moderately frequent
or those whose parents had few or no school discussions with them.
•



ERIC

Anthony P. Carnevale, Donna M. Desrochers, Richard A. Fry, & Stephen R. Rose, Educational Testing Service Office of Public Leadership: Adapted from National Center for Education Statistics, Confronting the Odds (1997), Table 15.



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